

A Revolution in Veterinary Treatment

THE USE OF COLLOIDAL DRUGS
WITH SPECIAL REFERENCE
TO
CROOKES' COLLOSOLS

Part I. Details of the Products.

Part II. The practical experience of an
eminent London Veterinary
Surgeon.

Issued by the Veterinary Department
THE CROOKES LABORATORIES
British Colloids, Ltd.
22, CHENIES STREET, LONDON, W.C.1

Telephone (three lines):
Museum 3863, 3897, 5757.

Telegrams:
Colossally, Westcent, London.

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Crookes' Collosols

the products of the Crookes'
Laboratories, and the original
colloidal preparations for
medicinal use.

The application of these eminently successful and medically established products to Veterinary use opens up a valuable means of treatment for a variety of conditions to the Veterinary Profession.

Practical experience has shown that the outstanding results which the medical profession acknowledges to be obtained from the drugs in the human being are equally striking following their Veterinary use.

PART I

Safe Antiseptic Remedies for Microbial Diseases in Animals.

VETERINARY surgeons are well aware that the remedial treatment of sick animals, although based on the principles of human medicine, has to be modified on account of animal instincts, which in man can be repressed. If a human being suffers from a septic sore or infective skin disease, lotions or ointments containing highly toxic antiseptics may be employed because the patient can be warned of their poisonous nature; but animals instinctively lick an injured part and are prone to remove dressings, hence it is essential to avoid as antiseptics substances likely to produce general poisoning and to select bactericidal remedies of low general toxicity.

Colloidal metallic sols (Collosols) are devoid of general poisonous effects, and are therefore particularly suitable for the treatment of small and delicate animals. Many Collosols are, in fact, given by mouth in large doses or even injected into the blood stream in generalised infections. Metallic Collosols consist of suspensions of extremely fine (ultramicroscopic) metallic particles in a fluid which is made isotonic—or equivalent in its salt ingredients, etc.—with the blood plasma. In colloidal form the metals have lost the objectionable astringent, irritant, caustic and highly toxic properties of their soluble chemical salts upon living tissues; but, in the colloidal form, the metals retain their powers of checking microbial

activity and thus of curing infective diseases of many types.

The antiseptic powers of the Collosols appear to be exerted by the infinitesimal colloidal particles becoming first attached (adsorbed) to and then penetrating the bacteria ; next, it is believed that the protoplasm of the bacteria re-converts the metal from its colloidal into the highly toxic ionic state which causes death of the bacteria.

However fascinating the scientific theory may be, practical applicability is the essential criterion of their ultimate value and relative importance in therapeutics. Most antiseptics, in strengths sufficient to kill bacteria, will irritate and injure wounded tissues, and many antiseptics check bacterial growth only for a brief period because they soon form useless compounds with the albumens of the serum or pus.

The metallic Collosols, on the other hand, have for veterinary practitioners the following outstanding advantages :—

- (1) There is with them no risk of general poisoning, so that owners or attendants may be safely entrusted with the maintenance of the treatment.
- (2) They cause no irritation or pain even if they are applied to such a delicate organ as the eye.
- (3) Being protected against decomposition in contact with plasma or salts, they do not lose their efficacy when applied to wounds or mucous membranes, and suitable Collosols can even be injected into the blood stream in generalised septic infections with successful results.

- (4) Their bactericidal action, instead of being evanescent, slowly increases and is maintained, hence frequent re-dressing of the septic focus can be avoided.

The practical importance of these primary advantages of Collosol therapy in veterinary practice is fully endorsed by the extraordinarily successful clinical results which we are privileged to quote in part 2 of this booklet, from the extensive experience of a well-known veterinary surgeon with these remedies. The Collosol preparations in most general veterinary use are as follows: in fact they can be regarded as suitable for all analogous conditions in which they have proved so eminently successful in human practice * :—

COLLOSOL ARGENTUM (Vet.) (Crookes' metallic silver 1-400) has for wounds "healing properties second to none."

Being non-irritant, it is an ideal antiseptic for mucous membranes, and its use is to be recommended locally in the form of douches or sprays in all catarrhal diseases of animals, e.g. for buccal or nasal catarrh, pharyngitis, laryngitis and bronchitis of horses, cattle, dogs and cats, as well as for urethral or bladder catarrhs. Its use locally as a wet dressing is advisable also in skin diseases, such as eczema, acne, ringworm and favus, and in superficial ulcers and abscesses, after removal of any scabs by washing.

COLLOSOL MANGANESE (Vet.) (Crookes' Colloidal Manganese 0.25%), administered by intramuscular injection, is valuable in many suppurative processes and specific for coccogenic infec-

* At the end of this brochure is given a complete list of Collosol Veterinary Preparations and the prices at which these are obtainable.

tions. It is worthy of trial in other staphylococcic and streptococcic diseases, for example, in boils, pustules and septicæmia.

COLLOSOL PALLADIUM (Vet.) (Crookes' Colloidal Palladium 0.05%) by injection has been found invaluable in respiratory diseases, such as the pneumonias of distemper, bronchitis and asthma. It has been suggested that subcutaneous injections of Collosol Palladium may be valuable in checking if administered early and may be of material benefit even in advanced cases.

COLLOSOL IODINE (Vet.) (Crookes' Colloidal Iodine 1%), containing iodine in its most active state, commends itself for the internal treatment of rheumatism and as an alterative for the blood, reduction of glandular enlargements and in cases of pleurisy.

COLLOSOL IODINE OIL (Vet.), another colloidal preparation of proved veterinary value for external application, is advantageous as a resolvent for inflammatory exudates, particularly those of rheumatic or traumatic origin. When massaged into the part it is rapidly absorbed and does not cause iodism. Its combination with Methyl Salicylate is advantageous in rheumatic cases. Collosol Iodine Oil is also worthy of trial in skin diseases, particularly in ringworm, pruritis and mange.

COLLOSOL IODINE OINTMENT (Vet.) is also issued for use with local massage where its application is more convenient than with an oily medium.

COLLOSOL KAOLIN (Vet.) (Syn. Pulvis Collosol Kaolin) is "particularly recommended in acute diarrhœa and colitis." These common complaints are due to invasion of the bowel by

micro-organisms and unwholesome food. Collosol Kaolin acts by adsorbing the poisons excreted by the bacteria and thus effectively protects the animal from intestinal toxæmia.

COLLOSOL SULPHUR (Vet.). Locally as a wet dressing Collosol Sulphur Lotion, or as Collosol Sulphur Ointment, these preparations are indicated in dermatitis and in mange. Collosol Sulphur Ointment is particularly suitable for small or delicate dogs whose skins are readily irritated by ordinary sulphur ointment. By mouth Collosol Sulphur (internal), one teaspoonful thrice daily, is useful in treating intestinal toxæmias associated with rheumatic affections.

COLLOSOL FERRUM (Vet.). Iron is the sheet anchor in anæmias. In the form of Colloidal Iron, it can be administered readily to debilitated or anæmic dogs or cats without producing gastric upset or constipation ; hence it is particularly suitable for delicate breeds.

PART II

Practical Uses of British Collosols in Canine Practice.

BY A LEADING LONDON VETERINARY SPECIALIST
ON DOGS.

After eight years' experience in the utilisation of Collosols I find myself in an advantageous position from which to review their practical value for veterinary treatment. Some colloidal preparations I have tried without achieving therapeutic success, but there are some Collosols which I would not be without because I consider them invaluable.

Absence of toxicity and irritation are two of the greatest assets of Collosol preparations; thus, although dogs are peculiarly liable to iodism, I have given large doses internally of Collosol Iodine without producing any evidence of iodine poisoning, and although many silver preparations are extremely irritating, Collosol Silver is absolutely non-irritant.

I propose to describe fully, for the benefit of those who have not tried them, the practical uses of those Collosols which I have found valuable.

Collosol Argentum (Veterinary).

TREATMENT OF WOUNDS.—Collosol Argentum can be used on all external wounds with most

beneficial results because its healing properties are second to none. I have used it on operations and accidental wounds with perfect confidence and found that the results were invariably satisfactory. One of its most valuable properties is its rapidity of action.

METHOD OF USE.—Collosol Argentum (Vet.) should be used as an antiseptic lotion when cleansing the part and then be applied as a moist dressing in the form of lint or cotton-wool, soaked in the Collosol.

TREATMENT OF EYE DISEASES.—Collosol Argentum I have found of great value in the treatment of some diseases affecting the eyes of dogs. It is most valuable of all for corneal ulcers and wounds on account of its non-irritating but great healing properties. I do not consider that it relieves the pain, hence, if much pain be present, I alleviate this by adding one grain of Cocaine Hydrochloride to each half-ounce of Collosol Argentum (Vet.); four drops of this solution is placed in the eye three times daily. As it causes no irritation Collosol Argentum can be used as an eye-wash.

CONJUNCTIVITIS in certain forms, particularly catarrhal forms, yields to regular treatment with Collosol Argentum (Vet.). Catarrhal Conjunctivitis—it is well known—is frequently associated with distemper and is seen also in old dogs. In such cases it is best to irrigate the eyes thoroughly with a warm solution of Boracic Lotion and then to put in about six drops of Collosol Argentum (Vet.) This treatment will not necessarily cure cases of distemper but it will suppress the discharge from the eyes better than anything.

KERATITIS (BLUE EYE) has been treated with Collosol Argentum with variable results. In some cases it clears the eyes up after other

remedies have failed ; in other cases it seems ineffective.

METHOD OF USE.—Irrigate the inflamed eye with Boracic Lotion or with Collosol Argentum (Vet.) diluted with five to ten parts of warm (normal saline) 0.9 per cent. salt solution, and finally place two or six drops of undiluted Collosol Argentum in the eye twice or thrice daily.

TREATMENT OF EAR DISEASES.—I have used Collosol Argentum (Vet.) for aural work only in cases where there has been an offensive suppurating discharge and have found that it acts generally like magic. I should like to quote the case of a kennel in which five of the bloodhounds were affected. Collosol Argentum was poured into the dogs' ears, which were also cleaned with some cotton-wool wrapped round a stick ; the ears were absolutely cured within three days. This case is certainly remarkable ; on the other hand, similar treatment is not equally successful in all cases of simple canker.

METHOD OF USE.—A teaspoonful or less of Collosol Argentum (Vet.), warmed to body temperature, should be poured into the ear once or twice daily ; if it is desired to use it as a lotion it should be diluted with five parts of warm saline solution.

TREATMENT OF DISEASES OF THE MOUTH.—In some very acute and obstinate cases of stomatitis (inflammation of the buccal mucous membrane), ulceration is usually present to a very marked extent and is of extremely serious character. Such symptoms are particularly characteristic of Stuttgart Disease, the ravages of which are only too well known. Collosol Argentum (Vet.), I find, tends to heal these ulcers and centres of necrosis better than most of the

other preparations recommended, such as Hydrogen Peroxide, Chromic Acid, etc.; the important advantage is that irritation during healing is eliminated.

Collosol Argentum (Vet.) can be used as an ordinary mouth-wash; it is particularly useful for dogs suffering from a condition resembling pyorrhœa (suppuration of the gums) in man; in such cases, however, attempts should be made to discover the primary cause of the complaint.

METHOD OF USE.—Collosol Argentum (Vet.) should be painted or sprayed over the inflamed or ulcerated areas several times daily, and by means of a fine syringe should be injected into any suppurating pockets in the gums.

TREATMENT OF METRITIS.—In metritis (inflammation of the uterus) Collosol Argentum (Vet.) has been used as a douche with very satisfactory results. It is highly antiseptic and non-irritant and can be recommended with confidence as the treatment which is safe and most likely to be successful.

METHOD OF USE.—The uterus should be douched by means of a sterilised apparatus at first with a mixture of Collosol Argentum (Vet.) diluted with five to ten parts of warm normal saline solution, and finally a little of the undiluted Collosol is injected in order to maintain the antiseptic action during the intervals between douches.

Collosol Manganese (Veterinary).

A Special Note.

Because of the excellent results I have obtained with it I regard this preparation as certainly

wonderful. The method of use, however, is extremely important ; it must be given as an intramuscular injection, and not subcutaneously, when unpleasant results, such as abscess formation, may ensue. After many trials I find the muscles of the buttocks by far the best situation for injections, and I can say candidly that I have never had any case of abscess when giving it in this way.

TREATMENT OF ECZEMA. Until recently I used Collosol Manganese (Vet.) only in cases of eczema which would yield to no other treatment, but now I use it fairly generally for this complaint, which is probably one of the most common diseases in dogs of all breeds. In 90 per cent. of cases it effects a cure which is usually lasting, and this is seldom the case with other treatments used for eczema. Assuming that every effort has been made to eradicate possible causes of the disease, e.g. incorrect diet, worms, or keeping dogs in too warm an atmosphere (without which precautions no treatment will be of much avail), I suggest the Collosol Manganese (Vet.) treatment for an animal which is very subject to frequent attacks of eczema. The dosage by intramuscular injection is as follows :—

First injection		.. $\frac{1}{2}$ c.c.
Second	„ (on 4th day)	.. 1 c.c.
Third	„ (on 8th day)	.. 1 c.c.
Fourth	„ (on 12th day)	.. $1\frac{1}{2}$ c.c.
Fifth	„ (on 16th day)	.. 2 c.c.
Sixth	„ (on 20th day)	.. 2 c.c.

This scale of dosage I have found safe and satisfactory for all breeds of mature age, i.e. above nine months old ; I have obtained equally satisfactory results in the toy breeds by halving these doses ; this illustrates the safety of the preparation.

Since the beneficial effect of the Manganese

injections does not become apparent until the whole course has been given, it is often necessary to treat the external lesions of eczema in order to alleviate the intense irritation and hasten recovery.

METHOD OF USE.—Collosol Manganese (Vet.) should be injected deeply into the gluteal muscles in the doses quoted above. For the external lesions of eczema, dressings of Collosol Argentum (Vet.) are beneficial methods of treatment.

TREATMENT OF INTERDIGITAL ABSCESSSES.—Most owners and breeders of dogs know well the painful and recurrent nature of this complaint. Although its actual cause is still obscure, a special form of diplococcus has been isolated, and it seems fairly definite that it is a general coccogenic infection which is manifested in these local lesions. Unless, therefore, treatment is carried out by an autogenous vaccine, which is far from certain in its results, or by Collosol Manganese (Vet.), interdigital abscesses are bound to recur from time to time.

Collosol Manganese (Vet.) is employed for this disease in exactly the same dosage and routine as for eczema. Along with the Manganese injections local treatment is essential, in mild cases by hot antiseptic foot-baths and in severe cases by surgical technique. The essential value of the Collosol Manganese (Vet.) is not only as an aid to the actual cure but also as a preventative or prophylactic against the recurrences which are the bugbears of this disease.

The following is a brief history of the worst case of interdigital abscesses I have ever seen. An adult Irish setter had an abscess between every toe on all four feet; it was so lame and in such pain that it could hardly walk; it had been under treatment of different kinds for several

months. The subcutaneous tissues between the toes were absolutely honeycombed with sinuses and fistulæ. I gave what local surgical aid I could and put the dog on Collosol Manganese (Vet.) injections and disinfectant foot-baths. These effected a complete cure and there has been no recurrence after eight months.

Complete cures do not result in all cases, but in nine cases out of ten they take place or, at least, the abscesses recur in so mild a form or so infrequently that they cause no inconvenience. Collosol Manganese (Vet.) is quite the best treatment known to me for interdigital abscesses.

METHOD OF USE.—Collosol Manganese (Vet.) is injected intragluteally in the doses quoted on page 11. For the local treatment of the abscesses wet dressings of Collosol Argentum (Vet.) are advisable.

TREATMENT OF PNEUMONIA, BRONCHITIS AND ASTHMA.—Collosol Palladium (Vet.) I have found invaluable in certain respiratory complaints, particularly pneumonia, bronchitis and asthma. In such cases when the heart is affected—and these are frequent—I have noticed that Collosol Palladium (Vet.) gives great relief.

It is supposed by some authorities that the Palladium acts by uniting with the hydrogen ions in the blood so as to liberate free oxygen for the benefit of the tissues which are suffering from oxygen-want owing to the restricted aerating surface of the inflamed lungs.

In cases of pneumonia, particularly those following distemper, Collosol Palladium (Vet.) has often excellent results when given in early stages, but a warning is essential delaying its use until

the pneumonia is really serious because its effects are less striking.

It should be given by subcutaneous injection in doses of from $\frac{1}{2}$ to 1 c.c. (8 to 15 min.), according to the breed and age of the dog, every six to eight hours, depending on the severity of the case. In very acute cases it can be given with safety and benefit three hourly.

In acute bronchitis, Collosol Palladium (Vet.) should be used by the same method and dosage, but in chronic bronchitis and asthma the injection is necessary only twice daily. I may mention that I have never seen any harmful results from the use of Collosol Palladium (Vet.).

METHOD OF USE.—Hypodermic injection of $\frac{1}{2}$ to 1 c.c. (8 to 15 min.) repeated every six or eight hours.

TREATMENT OF BURSITIS, SYNOVITIS, GLANDULAR ENLARGEMENTS AND INFLAMMATORY EFFUSIONS.—Collosol Iodine Oil (Vet.) can be used for all conditions which call for the external application of Tincture of Iodine, with advantage, because Colloidal Iodine is much more easily absorbed by the skin and other tissues, and, as has been mentioned, because it is non-toxic. It is necessary to rub only a little into the skin of the affected area until the preparation has disappeared. The rapid rate of absorption may be gauged by the fact that Iodine can be detected in the urine of a dog after a very brief space of time.

I have found it particularly useful to rub into the skin twice daily over glandular or bursal enlargements; good results have also been obtained from this method in some cases of cystic enlargement.

Collosol Iodine (Vet.) for internal administration I use only for the resolution or reduction of glandular enlargements, but I have had some success with it in a few cases of pleurisy, when I recommend its use in doses of $\frac{1}{4}$ to 1 teaspoonful three times daily.

METHOD OF USE.—For enlarged glands, arthritis, enlarged joints, etc., Collosol Iodine Oil is employed along with local massage. Internally Collosol Iodine (Vet.) in doses of $\frac{1}{4}$ to 1 teaspoonful three times daily is useful in the treatment of rheumatic affections, glandular enlargements and inflammatory effusions.

TREATMENT OF DIARRHŒA AND COLITIS.

—Collosol Kaolin (Vet.) can be particularly recommended for acute diarrhœa and colitis. The results are excellent as a rule. Its taste is not unpleasant and the preparation is extremely cheap—further points in its favour.

METHOD OF USE.—From one teaspoonful to a tablespoonful in food or water with every meal.

Crookes' Collosols—Veterinary.

PRICE LIST.

Argentum (Vet.)

4 oz.	8 oz.	16 oz.	80 oz.
1/6	2/9	5/-	22/6

Colloplasma—By weight.

1 lb.	7 lb.	14 lb.	28 lbs.	56 lbs.
2/-	12/6	22/6	40/-	£3 15s.

Ferrum.

4 oz.	8 oz.	16 oz.	80 oz.
2/-	3/6	6/6	27/6

Iodine 1%.

4 oz.	8 oz.	16 oz.	80 oz.
2/6	4/6	8/6	38/-

Iodine Oil.

4 oz.	8 oz.	16 oz.	80 oz.
2/6	4/6	8/6	38/-

Also with methyl sal. at these prices.

Iodine Ointment.

1 oz.	3 oz.	1 lb.	7 lbs.
1/3	3/-	14/-	75/-

Kaolin.

Approx. 1 lb. by weight.	7 lbs.	14 lbs.	28 lbs.
1/-	5/-	9/-	16/-

Manganese—For injection.

1 oz. = 28 c.c.	4 oz.
2/6	7/6

Manganese—Oral.

4 oz.	8 oz.	16 oz.	80 oz.
2/-	3/6	6/6	27/6

Palladium—For injection.

1 oz.	4 oz.
7/6	27/6

Sulphur.

4 oz.	8 oz.	16 oz.	80 oz.
2/-	3/6	6/6	27/6

Sulphur Lotion.

4 oz.	8 oz.	16 oz.	80 oz.
1/6	2/6	4/6	20/-

Sulphur Ointment.

1 oz.	3 oz.	1 lb.	7 lbs.
1/3	3/-	14/-	75/-

